

Highlights on the Wholesale Census, 1933

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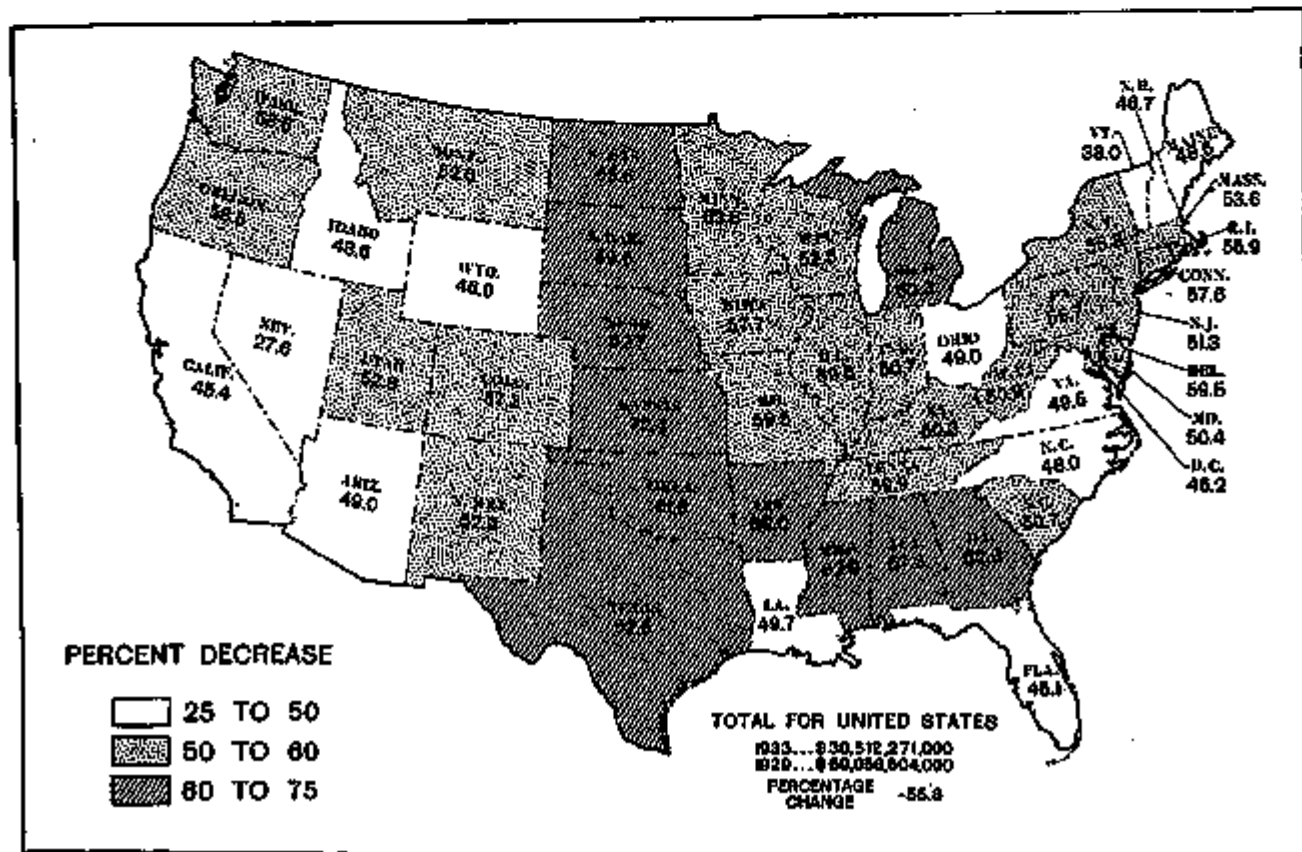
WHOLESALE trade constitutes one of the most significant barometers of general business conditions. Changes in its volume usually precede similar changes in consumption and the variability in wholesale prices normally presages at least the direction of fluctuations in retail prices. Central wholesale markets are sensitive, well organized, and respond more quickly and accurately to changing conditions in supply and demand than is true of other types of markets. For these reasons, many indexes of wholesale trade and of wholesale commodity prices have been developed.

Current indexes of various phases of business activity may be compared with certain methods of inventory control used by merchandising establishments. There is the book inventory, the real perpetual inventory, the tickler method of control, the physical inspection plan, the purchase record method, etc. All of these aim to indicate the approximate position of the merchandise in stock in order that purchases may be correlated to sales and to stocks already on hand. However, none of these methods of

control is deemed accurate and the degree of accuracy of each must be checked at least once or twice a year through an "actual physical inventory" which is the most complete and comprehensive of all devices now in use. In this manner the most accurate inventory method may be chosen for control purposes in the interim, and adjustments made from time to time on the basis of the results shown by the actual physical inventory. Similarly, current business indexes must be checked periodically in order to ascertain their accuracy or degree of error. The best way of accomplishing this is through a complete census covering similar items of information.

The first comprehensive inventory of wholesaling was taken in 1930 as part of the Census of Distribution covering operations for the year 1929. Through funds supplied by the Civil Works Administration another such inventory was taken during the present year as part of the Census of American Business covering the year 1933. In this way, it is possible to see wholesaling in the fourth year of a severe depression in comparison with the previous snapshot of wholesaling covering a year of prosperity, and to note the changes effected in this 4-year period.

¹Assisted by John Albright of the Wholesale Census in the preparation of some of the tabular material.



WHOLESALE TRADE OFF SHARPLY—DECLINE IN ESTABLISHMENTS SLIGHT

During the year 1933, there were in the United States, according to preliminary figures, 159,724 wholesale establishments or places of business where all or a major part of the goods are sold or distributed on a wholesale basis (table 1). This compares with 169,655 such establishments in 1929, or a decrease of 5.9 percent. However, when the final results are published, the number of establishments will probably total around 164,000. This means that the reduction in the number of wholesale business establishments is rather small and probably not in excess of 4 percent. The dollar volume of wholesale business, however, registered a severe decline. In 1933, the net sales of all wholesale establishments amounted to \$30,512,271,000 as compared with \$69,056,804,000 for 1929, marking a decrease of 55.8 percent. It is probable that the final figures on wholesale trade volume will be in the neighborhood of \$32,000,000,000. This means that the average sales per wholesale establishment were considerably lower in 1933 and that the smaller enterprises exhibited unusual tenacity during this depression which is probably the most severe in many respects in our history. Such a result augurs well for the "small business" man and should tend to

dispel fears entertained by some about the disappearance of the small wholesale business unit.

FOUR STATES HANDLE HALF OF BUSINESS

Approximately one-half of the total volume of business in 1933 was reported by wholesale establishments located in the four States of New York, Illinois, California, and Pennsylvania. The States of Ohio, Massachusetts, Missouri, and Texas accounted for an additional one-third of the business. Thus, the eight States named in the order of their importance, each reporting more than a billion dollars worth of wholesale business during 1933, made up about two-thirds of the total volume. The same eight States accounted for almost two-thirds of the wholesale business in 1929, although the order of their importance has changed in 1933 from that of 1929 except for New York, Illinois, and Texas, which still retain first, second, and eighth places, respectively. California changed places with Pennsylvania, moving up from fourth place to third. Ohio and Massachusetts advanced from sixth to fifth and from seventh to sixth positions, respectively, while Missouri descended from fifth to seventh place. Most of the remaining States also changed rank during 1933, may be seen by reference to table 1.

Table 1.—Summary of Wholesale Trade by States, 1933

State	Number of establishments		Net sales				Rank according to volume of business		Average number of employees, 1933		Salaries and wages, 1933 (in thousands of dollars)	
	1929	1933	Amount (in thousands of dollars)		Percent change, 1929-33	Percent of total, 1933	1929	1933	Full time	Part time	Full time	Part time
			1929	1933								
Total.....	169,655	159,724	\$69,056,804	\$30,512,271	-55.8	100.00			1,058,707	128,591	\$1,590,004	\$38,975
Alabama.....	1,742	1,548	274,142	157,688	-42.3	.62	25	30	8,949	951	11,315	247
Arizona.....	898	1,480	97,684	49,781	-49.0	.15	43	42	2,233	729	3,323	376
Arkansas.....	2,062	1,119	375,074	114,764	-69.0	.38	32	30	5,877	804	7,098	281
California.....	9,751	11,008	4,186,252	2,372,135	-43.4	7.45	4	3	92,258	29,065	124,924	11,914
Colorado.....	2,075	1,742	538,020	230,781	-57.3	.75	28	28	10,568	1,125	14,345	633
Connecticut.....	1,580	1,314	520,561	230,617	-55.9	.73	28	28	11,185	922	15,540	897
Delaware.....	288	238	118,087	47,785	-59.6	.16	43	44	1,379	245	2,327	99
District of Columbia.....	496	432	201,083	140,369	-30.2	.45	37	34	5,913	170	8,613	91
Florida.....	2,064	1,985	480,135	366,606	-23.5	.64	30	34	14,760	5,375	16,142	1,794
Georgia.....	8,126	2,205	1,016,686	368,638	-64.0	1.27	15	16	14,546	1,547	19,705	480
Idaho.....	674	769	95,610	49,155	-48.0	.15	41	43	2,024	807	2,749	437
Illinois.....	11,587	11,877	4,981,067	2,772,689	-44.6	9.69	2	2	80,661	7,780	142,455	4,817
Indiana.....	5,734	5,247	821,661	399,330	-50.7	1.21	19	17	12,672	2,382	24,630	943
Iowa.....	4,984	5,667	1,837,600	447,254	-75.7	1.47	13	13	18,417	3,788	22,171	1,242
Kansas.....	4,233	4,333	1,020,077	281,729	-72.4	.92	14	24	12,474	2,166	16,897	815
Kentucky.....	2,037	1,973	632,495	230,371	-63.3	.88	27	25	11,680	2,612	14,224	1,097
Louisiana.....	1,729	2,076	590,197	430,713	-27.0	1.35	20	15	17,192	1,470	22,393	537
Maine.....	987	788	150,078	87,668	-41.0	.33	39	37	4,863	580	6,765	245
Maryland.....	2,235	2,203	741,367	385,697	-47.4	1.30	23	21	17,126	3,145	21,844	1,014
Massachusetts.....	4,068	5,035	3,000,856	1,422,897	-52.6	4.66	7	6	43,403	3,004	73,616	1,839
Michigan.....	6,372	6,777	2,172,400	802,732	-63.3	2.83	8	9	24,049	3,773	40,678	1,700
Minnesota.....	5,531	5,001	1,730,044	793,406	-53.8	2.60	10	10	28,304	2,087	39,476	1,265
Mississippi.....	1,713	1,245	385,226	142,831	-62.9	.47	31	32	5,000	1,193	6,025	283
Missouri.....	6,574	6,906	3,381,721	1,302,897	-60.5	4.47	6	6	47,830	3,000	68,093	1,587
Montana.....	1,240	1,231	158,545	78,073	-50.0	.23	41	40	3,137	472	4,631	283
Nebraska.....	2,580	2,260	1,064,004	303,135	-71.7	1.38	13	18	12,613	2,020	16,257	721
Nevada.....	96	141	33,710	9,034	-73.0	.03	49	49	450	71	727	37
New Hampshire.....	326	283	61,414	32,730	-46.7	.11	45	46	1,726	109	2,215	75
New Jersey.....	3,444	2,849	1,006,851	401,049	-60.1	1.61	10	11	21,739	1,605	34,025	967
New Mexico.....	817	300	83,547	26,257	-68.9	.06	47	47	1,197	143	1,976	60
New York.....	20,311	31,406	7,004,424	7,803,017	11.4	25.77	1	1	165,493	9,894	241,391	6,738
North Carolina.....	2,413	2,271	717,432	372,612	-47.0	1.22	23	20	12,916	2,838	15,031	730
North Dakota.....	2,419	2,340	202,430	90,228	-55.6	.20	38	38	2,978	805	3,625	193
Ohio.....	2,077	2,299	3,804,100	1,676,076	-55.9	5.17	6	6	43,467	5,390	65,236	2,822
Oklahoma.....	4,170	3,634	773,398	284,831	-62.9	.97	21	23	12,457	1,823	16,338	730
Oregon.....	1,430	1,225	466,831	193,841	-58.5	.69	29	29	9,496	1,193	13,463	642
Pennsylvania.....	10,542	9,269	4,777,293	2,116,722	-55.7	9.94	3	4	72,974	5,842	108,590	3,122
Rhode Island.....	737	690	320,072	132,477	-58.9	.43	30	33	4,094	310	6,511	185
South Carolina.....	1,539	1,210	323,628	164,283	-50.7	.64	34	35	4,800	602	6,046	199
South Dakota.....	1,073	1,055	236,280	71,770	-69.6	.23	36	41	2,335	561	4,731	208
Tennessee.....	2,263	1,999	1,083,081	428,374	-60.9	1.40	17	14	15,827	1,017	19,169	641
Texas.....	9,594	8,870	2,804,518	1,469,131	-47.0	3.43	8	8	35,140	2,265	60,182	2,105
Utah.....	738	640	150,101	65,065	-56.5	.29	40	40	5,345	431	5,848	188
Vermont.....	366	247	57,393	25,591	-55.0	.13	46	45	1,787	124	2,167	70
Virginia.....	2,314	2,339	650,280	331,637	-49.5	1.00	24	22	15,820	3,101	19,512	1,000
Washington.....	2,591	2,660	937,706	435,821	-53.5	1.43	16	14	18,858	3,490	27,071	1,830
West Virginia.....	1,153	1,158	846,239	170,269	-80.0	.46	33	31	7,225	709	10,609	347
Wisconsin.....	3,616	4,115	972,278	465,205	-52.6	1.82	17	19	21,039	2,794	31,990	1,228
Wyoming.....	293	247	34,601	18,736	-46.0	.06	48	48	806	102	1,146	61

While the average decrease in the business of wholesale establishments in 1933 as compared with 1929 for the entire United States was 55.8 percent, 11 States showed a decline of over 60 percent and 24 States had a decrease of from 50 to 60 percent. Thirteen States and the District of Columbia showed a decline of less than 50 percent, but none of the States (including the District of Columbia) had a decrease of less than 25 percent. The States most seriously affected, as shown on the map, are located in the wheat-producing area and in the Cotton Belt. To this there is but one exception, namely, Michigan, which apparently suffered from the unusual decline in the automotive business, at least during the first part of 1933.

These data are shown in detail in table 2 wherein the States are listed according to the percentage decrease in their volume of wholesale business in 1933 as compared with 1929. The exact percentage decrease for each State is shown in the second column. The third column shows what percentage of the total wholesale business reported for 1929, for the United States and for each of the States, consisted of farm products of the raw material type, such as cotton, grain, livestock, leaf tobacco, etc. In the fourth column is shown, for the United States and for each of the States, the percentage of the total volume of wholesale business reported for 1929, which consisted of the type of farm products referred to above, plus certain types of "heavy" goods used primarily for industrial purposes, including machinery, equipment and supplies, metals and minerals, and lumber and building materials.

DECLINES MOST SEVERE IN STATES HANDLING LARGE VOLUME OF FARM AND "HEAVY" INDUSTRIAL PRODUCTS

It is a matter of common knowledge that a good share of the brunt of the depression has been borne by farming and by the heavy goods industries. An attempt has been made to express this relationship statistically. The percentage decrease in wholesale sales volume by States has been correlated first, with the sales of farm products (raw materials) percent of total 1929 sales, and second, with the percentage of 1929 sales accounted for by farm products (raw materials) and certain "heavy" goods combined. The correlations were calculated by the Pearsonian formula.

When the percentage reduction in sales by States is correlated with farm products (raw materials) percent of the total sales during 1929, r (the coefficient of correlation) is found to be 0.56 ± 0.07 . This represents some degree of association and indicates that the decline in the sales value of farm products has been a contributing factor in the decline in wholesale sales volume and that in general the States which in 1929 reported large proportions of their sales totals in raw materials coming from the farm showed the severest losses in business in 1933 from the 1929 level.

Table 2.—Percentage Decline in Wholesale Business Compared with Specified Kinds of Goods, Expressed as Percent of 1929 Total

States listed according to decrease in sales volume, 1929-33	Percentage decrease in dollar volume, 1929-33	1929	
		Farm products—raw materials, percent of total	Farm products plus selected industrial goods, percent of total
United States.....	55.8	17	33
1. Kansas.....	72.4	47	82
2. South Dakota.....	68.6	54	81
3. Arkansas.....	66.0	44	48
4. Alabama.....	67.3	22	46
5. North Dakota.....	65.0	57	84
6. Mississippi.....	63.9	54	87
7. Nebraska.....	62.7	53	67
8. Texas.....	62.6	47	66
9. Georgia.....	62.0	28	33
10. Oklahoma.....	61.9	33	60
11. Michigan.....	60.3	4	31
12. Tennessee.....	60.0	44	51
13. Illinois.....	59.6	17	39
14. Missouri.....	60.1	36	42
15. Delaware.....	59.5	2	16
16. Oregon.....	58.5	17	35
17. Iowa.....	57.7	45	66
18. Connecticut.....	57.6	4	28
19. Colorado.....	57.3	20	43
20. Indiana.....	56.7	25	48
21. Rhode Island.....	54.9	16	24
22. Pennsylvania.....	54.7	4	34
23. New York.....	54.3	0	23
24. Minnesota.....	53.8	41	80
25. Massachusetts.....	53.6	14	34
26. Washington.....	53.5	28	45
27. New Mexico.....	53.4	31	37
28. Utah.....	52.8	14	25
29. Wisconsin.....	52.5	15	38
30. Montana.....	52.0	30	46
31. New Jersey.....	51.3	0	11
32. West Virginia.....	50.9	4	22
33. South Carolina.....	50.7	49	65
34. Maryland.....	50.4	5	20
35. Kentucky.....	50.3	33	40
36. Louisiana.....	49.7	29	38
37. Virginia.....	49.5	18	26
38. Ohio.....	49.0	0	34
39. Arizona.....	48.0	10	15
40. Maine.....	46.6	3	8
41. Idaho.....	46.6	43	44
42. North Carolina.....	46.0	26	43
43. New Hampshire.....	45.7	1	6
44. District of Columbia.....	46.2	0	12
45. Wyoming.....	46.0	17	36
46. California.....	45.4	6	21
47. Florida.....	45.1	1	8
48. Vermont.....	44.0	4	9
49. Nevada.....	37.6	5	10

When the percentage reduction of sales by States is correlated with farm products (raw materials) and specified "heavy" goods percentage of the total sales during 1929, $r=0.68 \pm 0.05$. This is significant and represents a fairly high degree of association. It means that the States which in 1929 reported a large proportion of their business consisting of either raw materials from the farm or of industrial goods such as metals, lumber, machinery, and equipment, were the greatest losers in wholesale trade volume during the depression. To put the matter somewhat differently, much of the decrease in wholesale business is accounted for by the precipitous decline in the business of those establishments that deal in industrial rather than consumer goods. This decline can be more accurately measured when the data are available by kinds of business.

EMPLOYMENT ONE-FOURTH BELOW 1929

The 159,724 wholesale establishments employed during the year 1933, 1,179,358 persons, 1,058,767

on a full-time basis and 120,591 as part-timers. These employees were paid \$1,645,539,000 in salaries, wages, and commissions, of which \$58,875,000 went to part-time employees. While part-time employees constituted 10.2 percent of the total number of employees, they received but 3.6 percent of the pay roll. On the other hand, the full-time employees made up 89.8 percent of the total and received 96.4 percent of the pay roll. The employment and wage figures herein presented do not include proprietors and firm members or their compensation and drawing accounts.

When compared with 1929 the number of employees engaged in wholesale trade registered a decline of 26.5 percent. It is likely that when the final figures are compiled the decline in employment will be found to have been not more than 25 percent. This compares with a decline in employment for wholesale trade for the year 1933 of 22.1 percent, as shown by the index of the Department of Labor which is published monthly in the "Survey of Current Business." It would seem, therefore, that the current index of wholesale trade employment for the year 1933 overestimated the number employed by approximately 3 points. According to the census, salaries and wages in wholesale trade decreased 45.3 percent from the 1929 level. This percentage will probably be reduced when final figures are compiled to approximately 44. The monthly index of the Department of Labor shows a reduction of 39.6 percent in wholesale trade pay rolls in this same period.

Since pay rolls decreased much more than the number of employees, it would appear that the average earnings of employees engaged in wholesale trade in 1933 were about 25 percent less than in 1929. Inasmuch as the N.I.C.B. cost of living index stood at 74.8 in 1933 as against 100 in 1929, the decrease in average earnings per employee in wholesale trade was about equal to the decline in the cost of living.

EMPLOYMENT IMPROVED IN LATTER HALF OF 1933

Despite the unfavorable picture portrayed in the preceding paragraphs, some definite bright spots may be discerned in the results of the wholesale census. These lie in the substantial gains in wholesale trade employment during the latter half of 1933 as shown in table 3. If the average number of full-time employees for the year be regarded as 100, December 1933 showed an improvement over the beginning of the year of 10 points, and October registered an improvement of 11 points over the first quarter of the year. Similarly, the peak in part-time employment reached in November 1933 was 23 points higher than the low recorded in March. When the fourth quarter of 1933 is compared with the first quarter, full-time employment shows an improvement of 10.9 percent and part-time employment an improvement of 21.7 percent.

Table 3.—Monthly Fluctuations in Wholesale Trade Employment for the United States

(Expressed as percentages of the year's average number of employees)

Month	1933			1929
	Full time	Part time	Total full time and part time	Full time and part time ¹
Average month.....	Percent 100	Percent 100	Percent 100	Percent 100
January.....	95	93	95
February.....	85	92	86
March.....	86	91	84
April.....	96	92	95	00
May.....	97	95	95
June.....	98	97	98
July.....	100	96	98	05
August.....	102	99	102
September.....	105	100	105
October.....	108	111	107	100
November.....	105	114	108
December.....	105	111	108	100

¹ Employment data for 1929 were shown for 4 months only.

According to the 1929 Census of Distribution, the seasonal variation in such employment for the United States is about 8 points for full-time and part-time employment combined. If it is assumed that 1929 was fairly typical in this respect, it would appear that the last few months of 1933 showed more than seasonal betterment. It is also significant that the increase in employment which began in April continued gradually to the end of the year.

Table 4.—Wholesale Trade of the United States—1933 Percentage Increase in Employment, By States, October–December Over January–March

States	Full time		States	Full time	
	Percent	Percent		Percent	Percent
United States average.....	10.3	21.7	Montana.....	13.7	51.7
Alabama.....	10.6	44.2	Nevada.....	9.1	25.6
Arizona.....	8.1	1.0	Nevada.....	10.9	22.8
Arkansas.....	11.7	46.3	New Hampshire.....	13.5	2.0
California.....	12.1	12.9	New Jersey.....	8.3	12.9
Colorado.....	8.5	0.0	New Mexico.....	13.0	110.5
Connecticut.....	8.4	60.7	New York.....	7.3	0.3
Delaware.....	4.1	14.8	North Carolina.....	32.4	174.8
District of Columbia.....	10.7	33.3	North Dakota.....	14.7	77.8
Florida.....	-1.4	-4.0	Ohio.....	12.7	14.4
Georgia.....	12.4	42.1	Oklahoma.....	20.1	61.5
Idaho.....	21.8	100.0	Oregon.....	20.0	40.8
Illinois.....	11.8	13.1	Pennsylvania.....	8.9	8.5
Indiana.....	11.3	20.4	Rhode Island.....	6.2	8.7
Iowa.....	10.7	27.4	South Carolina.....	18.1	100.0
Kansas.....	10.6	27.8	South Dakota.....	14.0	69.4
Kentucky.....	-0.3	-50.3	Tennessee.....	9.9	0.0
Louisiana.....	13.0	26.9	Texas.....	15.2	44.0
Maine.....	8.5	14.4	Utah.....	9.3	40.3
Maryland.....	0.2	18.0	Vermont.....	13.4	106.2
Massachusetts.....	0.3	10.4	Virginia.....	9.9	33.7
Michigan.....	12.8	35.5	Washington.....	17.2	101.0
Minnesota.....	11.3	25.2	West Virginia.....	12.3	32.4
Mississippi.....	15.0	19.7	Wisconsin.....	10.9	21.0
Missouri.....	8.3	11.3	Wyoming.....	13.6	35.0

A comparison in full-time and part-time employment during the fourth quarter with the first quarter of the year (table 4) discloses the fact that with but one exception all of the States in the wheat area and in the cotton belt, particularly the latter, showed an advance in employment much higher than the average for the United States. Michigan, too, followed in the same direction. Obviously, had it not been for the improvement in business as reflected by increases in employment during the latter part of 1933, the decline in the volume of wholesale trade for 1933 as compared with 1929 would have been even more severe.